

The image shows a large-scale solar farm installation site. In the foreground, several rows of solar panels are mounted on metal racks, extending into the distance. Three workers wearing yellow hard hats and work clothes are visible, working on the panels. The background features a complex of power lines and transmission towers under a cloudy sky. The overall scene is a mix of green energy and traditional power infrastructure.

TREE **S**YSTEMTM

GROUND MOUNTING SPECIALIST

THE SOLAR MOUNTING SYSTEM FOR YOUR PROJECTS

500 References worldwide



Italy 17,2 MW



Germany 2,3 MW



Belgium 1,7 MW



Turkey 1 MW



The Netherlands 2 MW



Romania 6 MW



Hungary 2,2 MW



Austria 350 KW



Senegal 12 MW



Estonia 1,2 MW



Lithuania 2,1 MW



England 1 MW



Japan 5,2 MW



Wales 5 MW



Poland 100 KW



Carport

INTERNATIONAL PATENT

The foundation

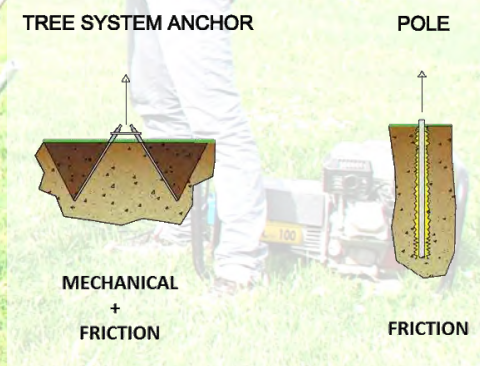
TreeSystem uses a owned patented technology for the foundation, it is based on the resistance given by slanting inserts driven into the soil in several directions like tree roots, from this concept derives its name.

This type of foundation gives several advantages when applied for the installation of Ground Mounted Solar Systems.

- ⇒ Easy installation by using a jackhammer
- ⇒ Avoid the use of concrete
- ⇒ More reliable than piles or screws with less penetration into the soil. It's resistance is given by the mechanical constraint created by the soil that bury the anchor instead of the friction of the ground on the surface of the pole as for the rammed posts.
- ⇒ Reduced need for marking

Applicable on:

- ⇒ Farmland
- ⇒ Sandy soil
- ⇒ Rocky ground
- ⇒ Asphalt layer
- ⇒ Limited depth available areas: landfill, quarries, bedrock underneath, archeological areas
- ⇒ Sloped areas



PERFORMANCE

Test has been carried out in the most severe conditions proving the stability of the system in the most various type of soils.

Performances proven by site tests carried out by expertise Geotechnical surveyors in comparison with traditional foundations.



Sand



Mud



Ploughed

TREE SYSTEM

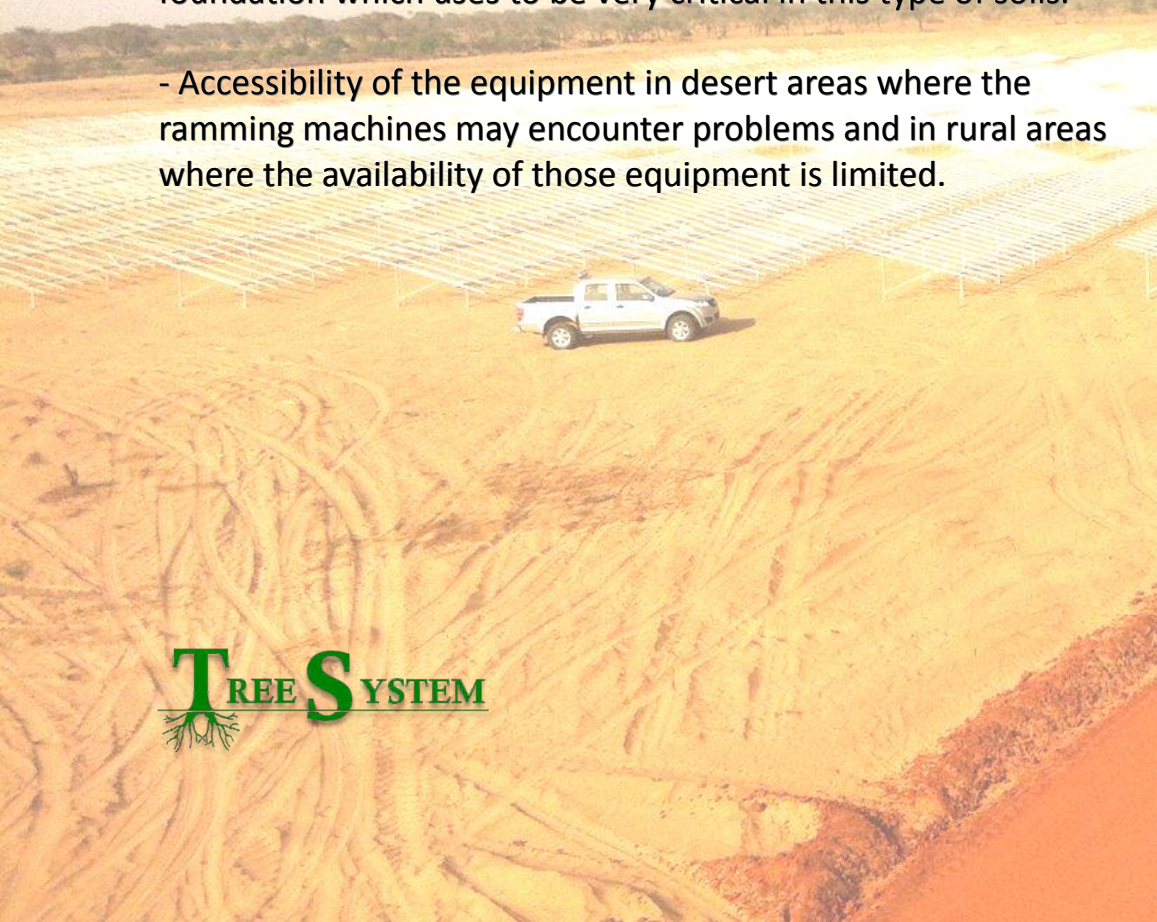
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Sandy soils and desert areas

TreeSystem gives advantages in the implementation of Solar Systems in sandy soils and desert areas.

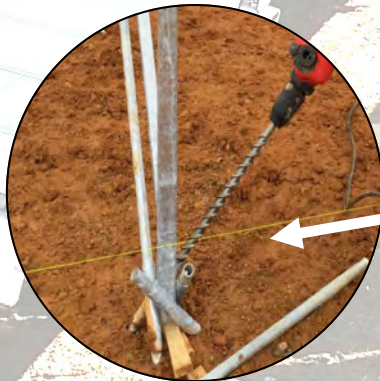
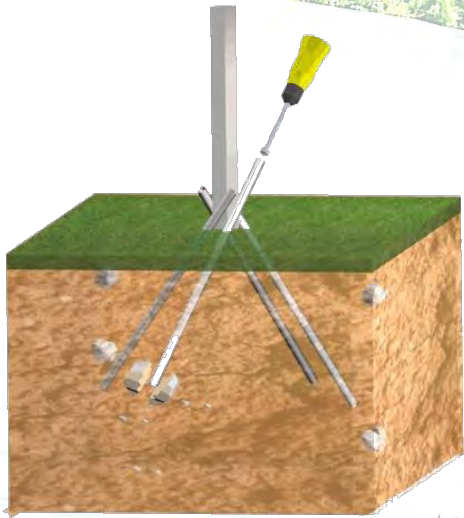
- Higher stability than screws and piles in this type of terrain by the characteristic configuration of the anchor which counts more on the mechanical constraint given by the soil that stays over the anchor than the resistance given by the friction with the surrounding soil as for piles and screws. Moreover the framing system employed drastically reduces the bending moments on the foundation which uses to be very critical in this type of soils.

- Accessibility of the equipment in desert areas where the ramming machines may encounter problems and in rural areas where the availability of those equipment is limited.



Rocky soil

TreeSystem gives advantages in the implementation of Solar Systems in rocky soils. The presence of boulders, stones and even rocks does not compromise the applicability of the system. Usually the pins can be driven through the stones breaking them or moving them into the soil. In the case of hard rocks or living-rock it may be required to drill a channel where to install the pin afterward.



DRILLING BIT



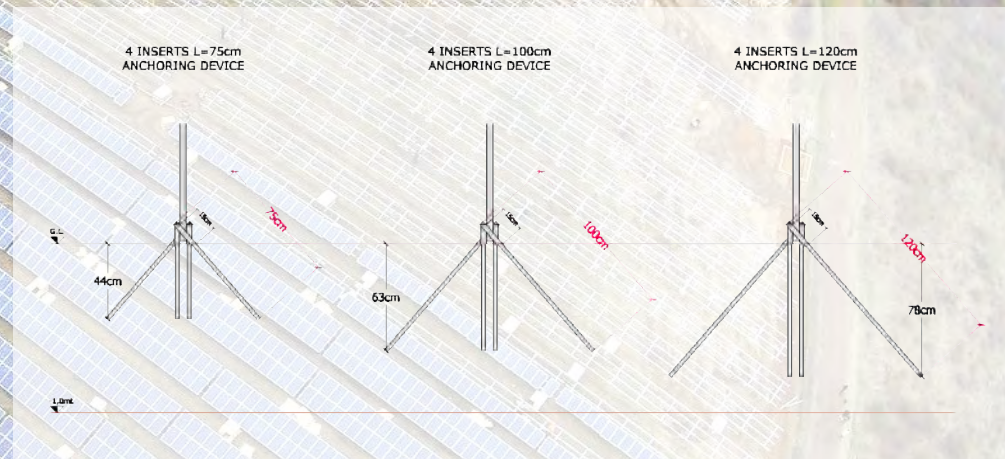
Asphalt layer

TreeSystem can be installed on an existing asphalt layer avoiding expensive operations of removal and disposal of waste material. When under the layer of asphalt is a layer of gravels it is sufficient to use a jackhammer in order to drive the pins in, the use of a drill for preparing the hole it is necessary when a layer of concrete is under the asphalt.

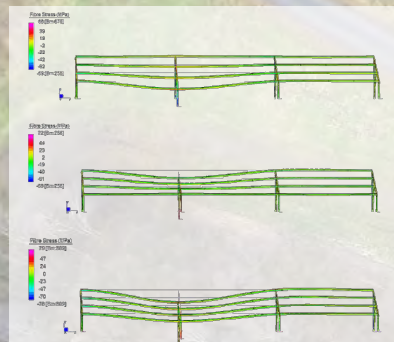


Landfills and sites with reduced depth available

TreeSystem is the best choice in case of landfill sites or sites where the depth available for the foundation is limited such for example: **archeological areas, presence of bedrock or ducts underneath**. The system has usually a vertical penetration into the soil that can be kept in about **50 cm** without the risk of hitting the capping of the landfill or buried objects.



Differential settlement analysis: Impact on the yield stress of the mounting structure caused by the soil settlement over the time

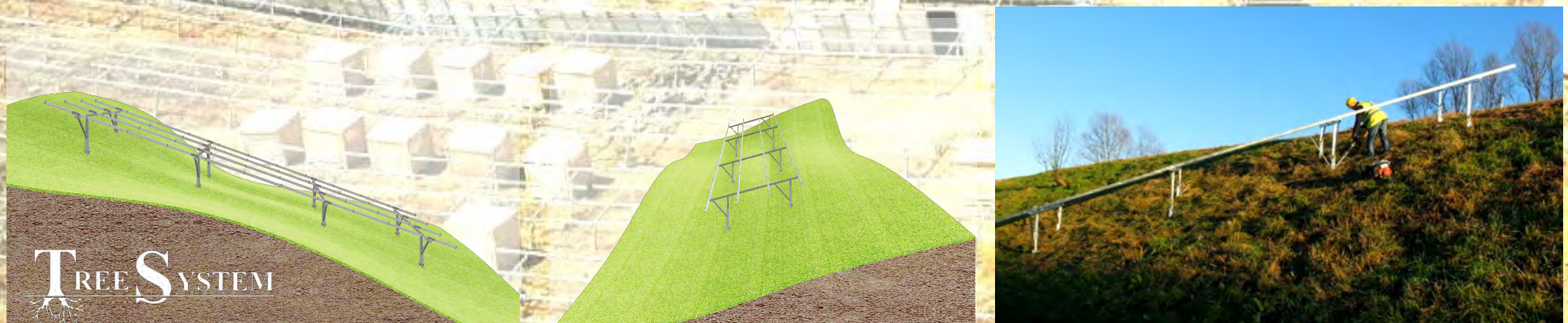


Sloped areas

TreeSystem designed for the sloped areas is the best choice for the installation on this kind of critical conditions without the need for groundworks, even with very steep slopes in several directions.

Thanks to the implementation made by light equipment, such as electropneumatic hammer, it is possible to install Ground mounted PV systems in areas with a degree of inclination where the machinery for the installation of piles and screws are in hazard for overturning or simply can't reach.

The Ground Mounting System can be designed to be adjustable for slopes up to any degree North to South and up to 45° on the East to West direction.



Solar Racking Systems

- ⇒ Standard structure for flat and uneven terrain
- ⇒ Adjustable structure for steep slopes North to South
- ⇒ Adjustable structure for steep slopes North to South and East to West
- ⇒ Duopitch East West oriented structure
- ⇒ PV structure with reduced footprint for KITs
- ⇒ Carport systems

Standard for FLAT and UNEVEN terrain

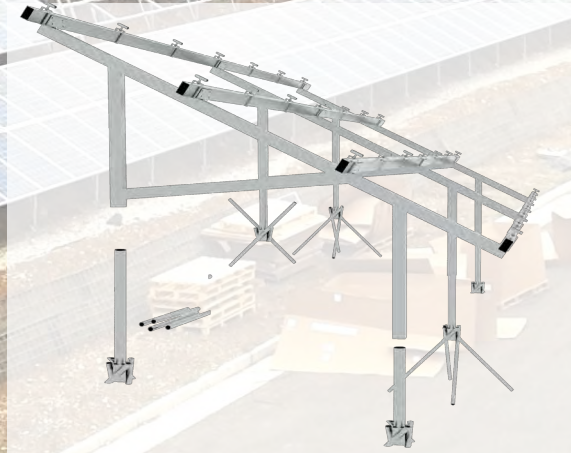
- Best for flat and uneven terrains; (with a smooth slope up to 4° North South and up to 10° East West)
- Customized tilt for the modules
- Portrait and Landscape orientation available
- 1 to 4 modules overlapping



North to South ADJUSTABLE for steep slopes

For the installation of modules on steep slopes North to South oriented of any inclination. The adjustability is possible thanks to the adjustable pillars that allow to set differential height between the frames and between the frontal and rear support of each frame.

- Customized tilt for the modules
- Portrait and Landscape orientation
- 1 to 4 modules overlapping



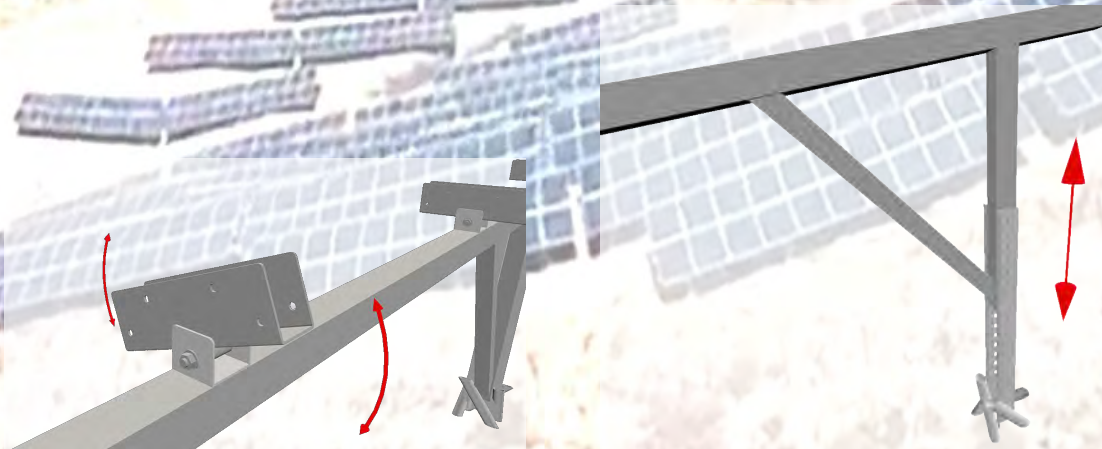
NSEW ADJUSTABLE for steep slopes

For the installation of modules on slopes simultaneously facing North to South and East to West. The adjustability NS is given by the adjustable pillars, the adjustability EW is reached with the use of rotating “U-shaped” connections for the beams.

Available at all tilt degrees inclination

Portrait and Landscape orientation

1-4 modules overlapping



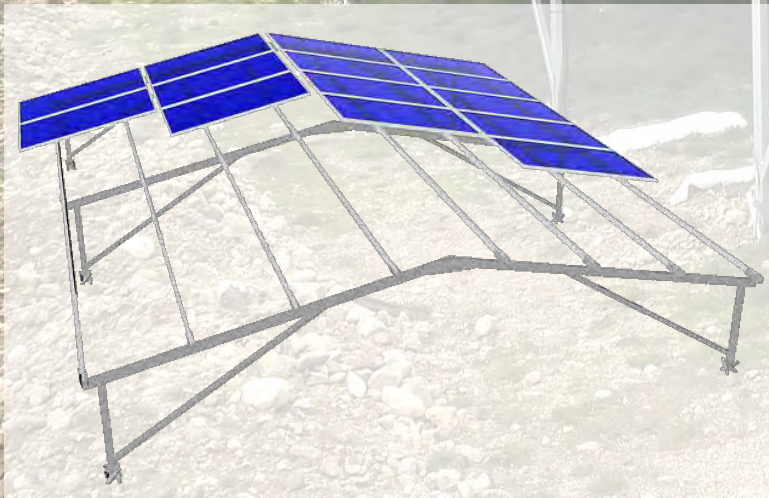
Duo-pitch East-West Oriented Structure

For the installation of modules oriented to East and West in order to optimize the production of Energy during the beginning and the end of the day.

Available at all tilt degrees inclination

Portrait and Landscape orientation

1-4 modules overlapping



TREE SYSTEM

Structure for PV-KITs

For an easy predisposition of a PV-Kit system, thanks to the reduced footprint it can be packed within the sizes of a Euro-Pallet (120x80x150cm) in together with a complete PV system. It is designed for the employment using the most common tools (Hammer and hex key). The modular layout allows to adjust the table of modules at convenience without prior design.

Available at the ideal tilt degree inclination for the purpose

2 modules overlapping in landscape orientation



Carport and Bikeport

Solar Port for sheltering cars, bikes or equipments, it is modular so it can be extended to the requie lenght in order to optimi-
ze the use of the available space.

Several tilt options

Portrait orientation

2/3 modules overlapping



TREE SYSTEM



Fencing system

TreeSystem apply its innovative anchor to the fencing systems which give all of the advantages deriving from this type of technology and in addition the possibility to complete the installation of the fence immediately after the set-up of the posts.

Several height available

Possibility to install welded mesh or chain link **rolls** and modular rigid **panels**





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